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Process aid for melt processible polymers

Description of Technology: The present invention relates to extrusion of non-fluorinated melt-processible polymers which contain fluoropolymer processing aids.

Patent Listing:

1. **US Patent No. 6,048,939**, Issued April 11, 2000, "Process aid for melt processible polymers"

http://patft.uspto.gov/netacgi/nph-Parser?Sect2=PTO1&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&d=PALL&RefSrch=yes&Query=PN%2F6048939

Market Potential: The melt extrusion of high molecular weight polymers, for example, hydrocarbon polymers and polyamides, into shaped structures such as tubing, pipe, wirecoating or film is accomplished by well-known procedures wherein a rotating screw pushes a viscous polymer melt through an extruder barrel into a die in which the polymer is shaped to the desired form and is then subsequently cooled and solidified into a product having the general shape of the die.

In order to achieve low production costs, it is desirable to extrude the polymer at rapid rates. Higher extrusion rates may be readily obtained by increasing the rate of revolution of the extruder screw. However, this technique is subject to limitations imposed by the viscoelastic properties of the polymer substrate

It is an object of this invention to provide non-fluorinated resin compositions having incorporated therein well-dispersed fluoropolymer process aids, thereby resulting in extrudable melt-processible compositions having substantially improved processability characteristics. That is, it is an object of the invention to provide melt-processible compositions which can be extruded at rapid rates, low die pressures, and low melt temperatures to provide shaped articles having excellent surface quality.

Benefits:

- Polymers extruded at rapid rates
- Lower production costs
- Shaped articles have excellent surface quality

Applications:

- The production of tubes, pipes, wirecoating, and films

Contact: Ken Anderson
Director, Entrepreneurial & Small Business Support, Delaware Economic Development Office (DEDO)
Carvel State Building, 820 French Street, Wilmington, DE, 19801
Phone: (302) 577-8496, Fax: (302) 577-8499, Email: Kenneth.R.Anderson@state.de.us